Inspect, Analyze And Improve Yield Rates

The Keyence CV-5000 Vision System can transfer over 16 ultra high definition images (2431 × 2050 pixels) per second using the high speed 5 megapixel camera — 11 times faster than previous models.

The system allows for the simultaneous use of 14 different models, including the ultra-compact standard and Mega Pixel, as well as the high speed standard (640 × 480 pixels) and high speed 2 Mega Pixel (1600 × 1200 pixels), which can transfer images in 4.7 ms and 29.2 ms, respectively. Each camera type is available in both color and monochrome models.

Connecting extra lighting controllers or camera expansion units to either side of the base controller creates a seamless solution without additional PLC programming or wiring. Up to 4 lighting control units can be attached, each with 2 lighting terminals, allowing the CV to automatically dim and strobe up to 8 lights at the same time.

The 3 + 1 parallel processing system addresses the heavy processing needs required by high-volume 5 megapixel images, color processing and advanced algorithms. Several new algorithms have been added to detect foreign objects or burrs on irregularly shaped profiles. These new algorithms also filter out glare or

other background noise so that only the flaws are detected. The new fine color processing function directly processes full-color information to reliably extract defects from backgrounds with pattern or illumination variations.

Built-in statistical functions let the user view the inspection results in real-time, and an on-board image archive can store up to 1024 inspection images. Combining these two features allows for detailed analysis of product result trends and failure conditions, making it easy to fine tune program tolerance and settings to improve yield rates.

Learn more: www.keyence.com/cv5 [1]

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[1] http://www.keyence.com/cv5